## **Mobility: Getting Around the Bay Area**

A principal goal of the 2001 Regional Transportation Plan is to improve mobility for persons and freight. Mobility can be defined as the ease of getting around. This section includes statistics describing how easy (or difficult) it was to get around the Bay Area on freeways, local roadways and transit, as well as statistics on the number of vehicles and people that used each of these systems in 2001.

Traffic congestion and travel time are used to describe ease of travel on freeways. Statistics on vehicles using freeways include the total number of vehicles and total number of trucks at selected locations. The report presents separate statistics on travel time savings offered by carpool lanes and the number of vehicles using carpool lanes.

Measuring the ease of travel on the local road network is more challenging because the network is so extensive and is managed by more than 100 different cities and nine counties. Most jurisdictions use an indicator of congestion called "level of service," which corresponds roughly with traffic congestion. This report does not include traffic volumes on local roadways because this information is not consistently monitored or reported. We hope to fill this gap in future reports.

Schedule adherence (on-time performance) is used to describe ease of travel on transit. To track transit usage, the report includes annual and daily ridership statistics reported by operators to the Federal Transit Administration.

#### **Freeway Congestion**

### Time Lost to Freeway Gridlock Declines 12 Percent in 2001

After steadily worsening throughout the economic boom years of the late 1990s, the most closely watched regional mobility index — the number of hours of delay experienced daily by drivers on Bay Area freeways — took a turn for the better in 2001. Regionwide, vehicles spent 155,500 hours in congested conditions (defined as average speeds below 35 miles per hour for 15 minutes or more on a typical weekday) on regional freeways in 2001, down 12 percent from the 177,600 hours of delay experienced in 2000 (see table below).

Average delays decreased the most in San Mateo County (down 40 percent), San Francisco (down 32 percent) and Santa Clara County (down 28 percent). The dramatically improved conditions in these counties are due in part to the coming online of some new projects, though economic factors probably played a much larger role. The economic

slowdown resulting from the bursting of the dot.com bubble that began in 2000 has hit the Peninsula subregion harder than other parts of the Bay Area, and the localized reductions in congestion are reflective of this fact. Delay also decreased significantly in Solano and Marin counties in 2001 (25 percent and 20 percent, respectively).

These decreases were partially offset by increases in congestion on East Bay freeways, where delay rose 16 percent in Contra Costa County and 6 percent in Alameda County. These increases can probably be explained by the substantial number of households that have moved to the region's eastern fringes — and beyond — in search of affordable housing in recent years. Even during a slowing economy, large numbers of workers still throng highways in Alameda and Contra Costa counties en route to jobs in San Francisco, the Peninsula and Silicon Valley.

Daily Freeway Delay by Bay Area County, 1996-2001

	Freeway		<u>Dai</u>	ly Vehicle Hours	Percent Change			
	Miles (2001)	1996	1998	1999	2000	2001	2000–2001	1996-2001
Alameda	138	35,400	41,800	44,300	61,700	65,600	+6%	+85%
Contra Costa	87	12,500	14,000	14,500	16,200	18,800	+16%	+50%
Marin	28	6,300	7,200	7,700	9,900	7,900	-20%	+25%
Napa	5	0	0	0	0	0	0%	0%
San Francisco	19	6,500	6,900	9,100	12,500	8,500	-32%	+31%
San Mateo	73	7,000	9,800	11,500	18,100	10,900	-40%	+56%
Santa Clara	137	20,500	29,300	36,900	51,700	37,000	-28%	+80%
Solano	79	70	400	700	3,200	2,400	-25%	+3,329%
Sonoma	55	1,800	2,800	3,600	4,300	4,400	+2%	+144%
Bay Area	621	90,070	112,200	128,300	177,600	155,500	- <b>12</b> %	+73%

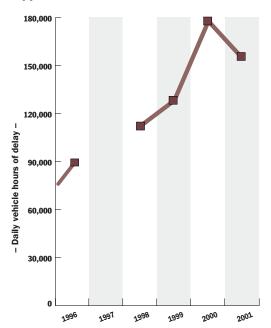
Source: Caltrans District 4

Caltrans did not measure freeway delay in 1997.

Appendix B lists delay on all freeway segments for the morning and evening commute periods in 2001.

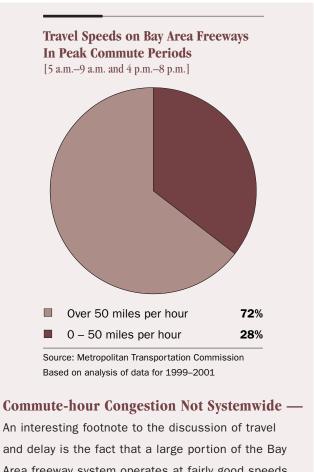
Congestion Up Sharply Since Mid-1990s — After holding steady in most Bay Area counties during the early 1990s, congestion increased significantly in the latter half of the decade as the regional economy boomed. By 2000, total regional delay had almost doubled from 1996 levels (see graph below). The lower levels of delay observed in 2001 mark a departure from this trend; however, 2001 congestion levels remain higher than 1999 congestion levels regionally and in all counties except recession-plagued San Francisco, San Mateo and Santa Clara counties.





Source: Caltrans District 4

Caltrans did not measure freeway delay in 1997.



An interesting footnote to the discussion of travel and delay is the fact that a large portion of the Bay Area freeway system operates at fairly good speeds during the commute period, notwithstanding the considerable congestion at certain key points.

Based on data from 1999–2001, MTC estimates that approximately 72 percent of the vehicle miles traveled during peak commute periods were at speeds over 50 miles per hour.

#### Freeway Congestion (continued)

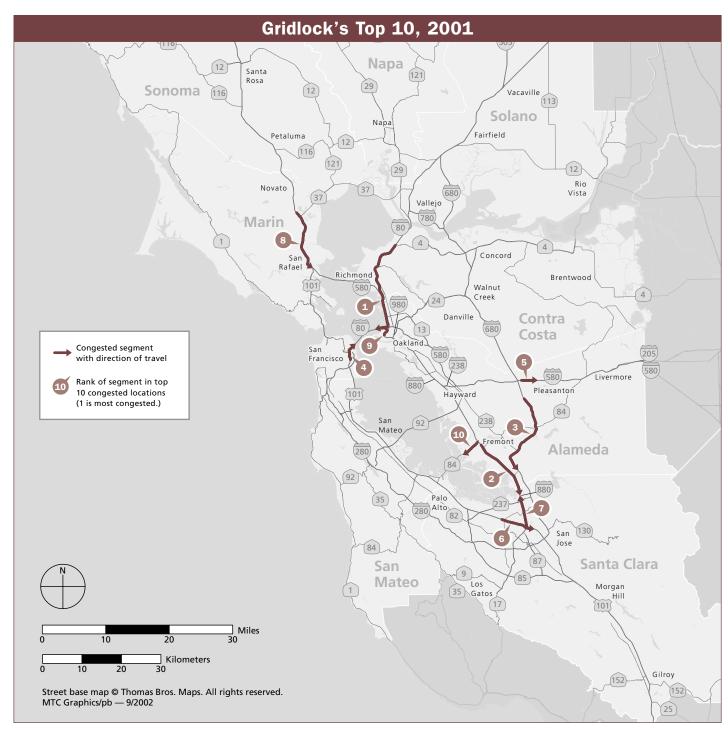
**Gridlock's Top 10** — Each year, Caltrans District 4 identifies the 10 freeway locations with the worst congestion during morning or evening peak commute hours (see table and map). Familiar bottlenecks occupied the top spots in 2001, with some moving up or down a notch. But 2001 also saw three new trouble spots crack the top 10: Interstate 580

in Alameda County near Pleasanton, Interstate 880 in Alameda and Santa Clara counties, and Route 84 in Alameda County approaching the Dumbarton Bridge. These segments replaced U.S. 101 in San Mateo County, Route 237 in Santa Clara County, and Route 92/San Mateo-Hayward Bridge in San Mateo and Alameda counties.

2001 Rank	Location	Delay in Vehicle Hours	2000 Rank
1	Interstate 80, westbound, a.m. — Alameda/Contra Costa County Route 4 to Bay Bridge metering lights	9,410	1
2	Interstate 880, southbound, a.m. — Alameda County South of Route 84 to north of Dixon Landing Road	8,880	3
3	Interstate 680, southbound, a.m. — Alameda County Sunol Road to south of Route 262	8,510	2
4	Interstate 80, eastbound and U.S. 101, northbound, p.m. — San Francisco County Army Street to west end of Bay Bridge	5,050	5
5	Interstate 580, eastbound, p.m. — Alameda County Hopyard Road to west of El Charro	5,030	13
6	U.S. 101, southbound, p.m. — Santa Clara County Great America Parkway to 13th Street	4,100	4
7	Interstate 880, northbound, p.m. — Santa Clara/Alameda County U.S. 101 to Dixon Landing Road	4,000	12
8	U.S. 101, southbound, a.m. — Marin County Rowland Boulevard to Interstate 580	3,230	6
9	Interstate 880, northbound, a.m. — Alameda County  1 mile north of 7th Street to Bay Bridge	2,920	10
.0	Route 84, westbound, a.m. — Alameda County Newark to Dumbarton Bridge toll plaza	2,860	11

Source: Caltrans District 4

Rankings are for routes in which continuous stop-and-go conditions occur with few, if any, breaks in the queue. Thus, corridors that have equally severe delays but where congestion is broken into several segments may rank lower in this type of congestion listing.



# San Francisco, San Jose Morning Commutes Improve, Oakland Commutes Lengthen

Using the freeway congestion data gathered by Caltrans, we can calculate driving times for some popular morning commutes. We report here on drive times into San Francisco, Oakland and San Jose — the region's three largest cities — from various locations around the Bay Area. The selected commutes assume drivers use the main freeway routes between the origin and destination points,

and it is further assumed that the drivers travel in regular, mixed-flow freeway lanes (not carpool lanes).

Looking at the table below, we can see that drive times improved for the San Francisco- and San Jose-bound commuters, a finding that is consistent with the reduction last year in freeway congestion in Marin, along the Peninsula and in Santa Clara County (see page 8). Accounting for a

#### Travel Time for Selected Commutes (Arriving at 8:30 a.m.), 1996, 2000 and 2001

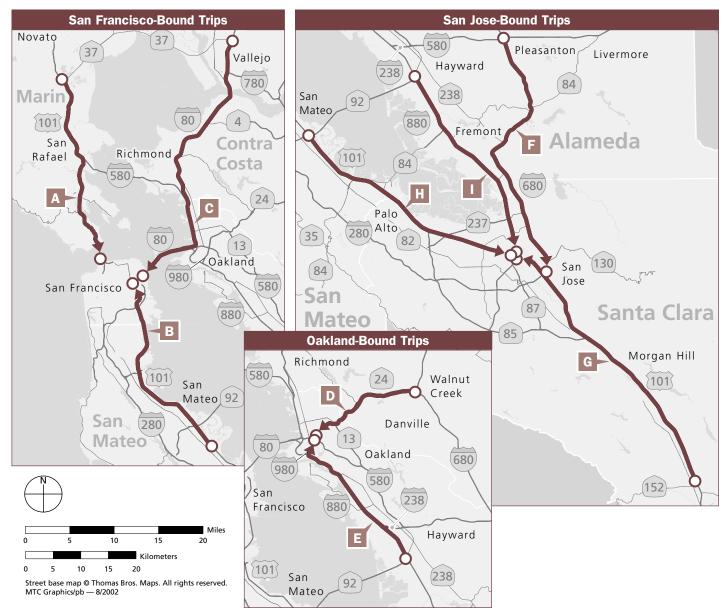
		<b>Travel Time in Minutes</b>			Change in Minutes		
		1996	2000	2001	2000-2001	1996-2001	
SAN F	FRANCISCO-BOUND TRIPS						
A	<b>U.S. 101, southbound</b> Novato to Route 1 junction in San Francisco (27.6 miles)	59	69	55	-14	-4	
В	U.S. 101, northbound Redwood City to Interstate 80 junction (23.8 miles)	30	32	26	-6	-4	
C	Interstate 80, westbound Route 37 in Vallejo to 5th Street (31.5 miles)	60	87	82	-5	+22	
OAKL	AND-BOUND TRIPS						
D	Route 24, westbound Interstate 680 junction in Walnut Creek to Interstate 580/980 junction (14.2 miles)	20	20	26	+6	+6	
E	Interstate 880, northbound and Interstate 980, eastbound Route 92 junction in Hayward to Interstate 580 junction (16.9 miles)	19	19	23	+4	+4	
SAN J	IOSE-BOUND TRIPS						
F	Interstate 680, southbound Interstate 580 junction in Dublin to U.S. 101/ Interstate 280 junction in San Jose (28.7 miles)	67	69	69	0	+2	
G	<b>U.S. 101, northbound</b> Route 152 junction in Gilroy to Interstate 880 junction (32.5 miles)	38	59	55	-4	+17	
Н	U.S. 101, southbound Route 92 junction in San Mateo to Interstate 880 junction (26.1 miles)	46	44	43	-1	-3	
1	Interstate 880, southbound Route 92 junction in Hayward to U.S. 101 junction (22.8 miles)	48	67	61	-6	+13	

Source: Caltrans District 4

Data not developed for 1997-1999.

large part of the reduction in travel time from Marin into San Francisco was the introduction (in July 2000) of the FasTrak™ electronic toll collection system on the Golden Gate Bridge. But the stubborn congestion patterns in the East Bay increased drive times for Oakland-bound

commuters from areas like Hayward and Walnut Creek. Compared to 1996 levels, travel times increased significantly for most of these big-city commutes, with commutes north and south from San Mateo County being a notable (though not easily explainable) exception.



#### **Freeway Traffic Volumes**

### North Bay and East Bay Gateways See Traffic Surge

How heavily used are Bay Area freeways? To answer this question, Caltrans maintains fixed traffic count stations that continuously record the number of vehicles that pass by (in both directions) throughout the year. These counts are expressed in terms of average daily vehicle volumes. Changes in freeway traffic volumes are often correlated with changes in congestion and travel time.

In 2001, this correlation is evident. As can be seen in the map at right, traffic volumes showed marked increases

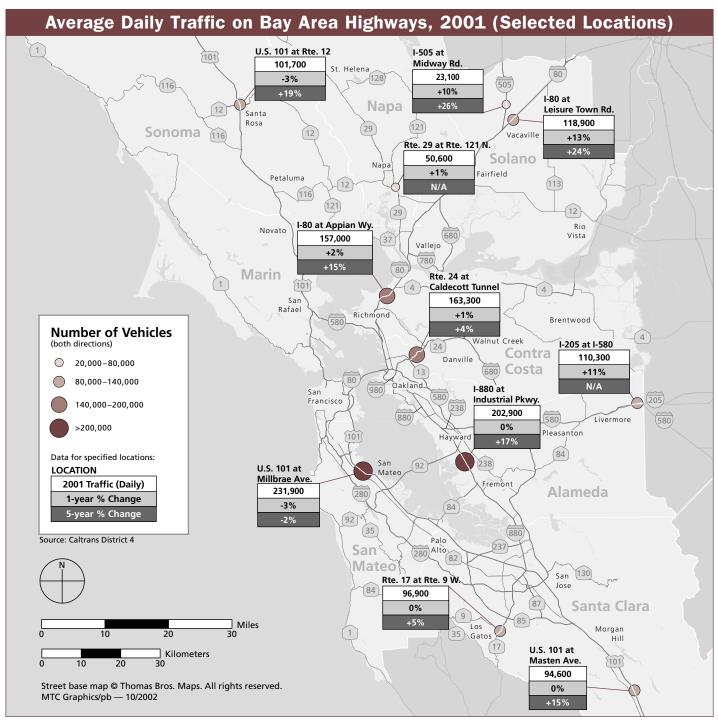
in North Bay and East Bay "gateway" locations (sites near the Bay Area's borders with neighboring counties). Meanwhile, in Marin, on the Peninsula and in South Bay locations, traffic volumes showed little growth or actually decreased, paralleling similar trends in congestion and travel times, as outlined in the preceding sections of this report. These same patterns are evident in the 2001 traffic volumes on the Bay Area's eight toll bridges (see table below).

#### Average Daily Traffic on Bay Area Bridges (Toll Direction Only), 1999–2001

		Number of Vehicles							
Bridge	1999	2000	2001	2000–2001					
San Francisco-Oakland Bay	135,220	138,181	136,636	-1%					
Carquinez	58,139	60,402	62,185	+3%					
Golden Gate	57,586	58,127	56,511	-3%					
Benicia-Martinez	46,892	47,705	49,382	+4%					
San Mateo-Hayward	40,932	42,586	41,153	-3%					
Richmond-San Rafael	32,759	33,968	35,427	+4%					
Dumbarton	31,926	34,226	34,362	0%					
Antioch	5,267	5,785	6,487	+12%					
Total All Bridges	408,721	420,979	422,142	+.3%					

Sources: Bay Area Toll Authority; Golden Gate Bridge, Highway and Transportation District

Data for 1997 and 1998 not available.



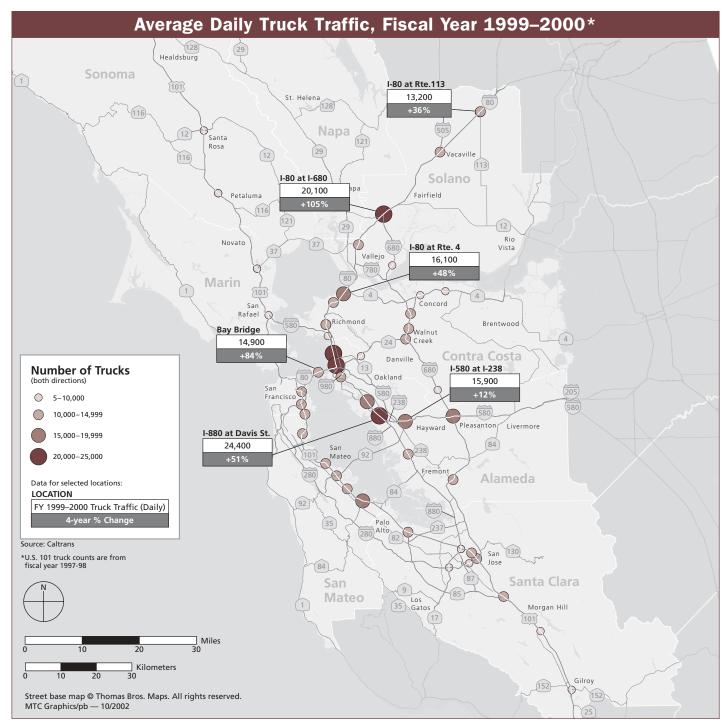
#### **Truck Traffic**

## Big Jump in Truck Traffic on Interstate 80 During Late '90s

Most of the goods produced, consumed in, or just passing through the Bay Area travel by truck for at least some part of the journey to market. This makes freight activity a key segment of overall freeway usage. The freeways with the largest volumes of truck traffic are Interstate 80, Interstate 880, and Interstate 580 east of Oakland — all key routes for moving goods to and from the Central Valley and the Port of Oakland. Of these, Interstate 80 experienced the greatest growth in truck traffic during the most recent four-year period for which data is available (fiscal year 1996-97 to fiscal year 1999-2000). Truck traffic on Interstate 80 at the Interstate 680 junction in Solano County more than doubled during this period,

a time of tremendous growth in the regional economy. (See map for truck traffic levels at selected Caltrans monitoring locations.)

Although complete data is not yet available, observations suggest that truck volumes declined between fiscal year 1999-2000 and fiscal year 2000-01 at some locations, due chiefly to the economic slowdown. These observations are buttressed by the Port of Oakland's reporting of a 7 percent drop in the number of containers handled at the port in 2001 (see page 48). Fewer containers passing through the port means fewer trucks are required for pick up and delivery, as the effects of reduced economic activity are felt along the supply chain.



#### **Carpool Lane Time Savings**

## **Carpool Lanes Take Big Bite Out of Some Bay Area Commutes**

Bay Area commuters who double up or triple up can realize significant time savings by taking advantage of the region's 275-mile network of carpool lanes. From Interstate 880 and Route 85 in the South Bay to U.S. 101 in Marin County, the number of minutes saved on some of the region's toughest commutes is well into double digits, and in most cases savings have increased in recent years.

The amount of time that can be saved in any given carpool-lane segment is a function of several things, including the length of the segment, the amount of congestion in the neighboring mixed-flow lanes (the more congestion, the slower the travel speed), and the number of cars in the carpool lane itself (if a carpool lane becomes too "popular," travel speeds decrease and time savings are reduced). In the Bay Area, where most carpool lanes are not operating at capacity, the first two factors — lane length and adjacent congestion — are the primary determinants of time savings. So it is not surprising that as congestion increased dramatically in the late 1990s, so too did the absolute time savings offered by freeway carpool lanes.

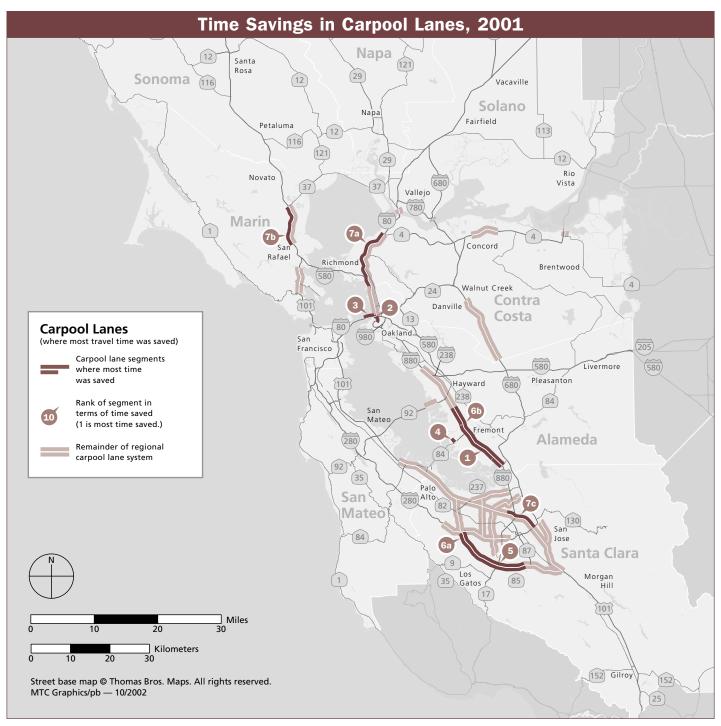
#### Bay Area Carpool Lanes Where Most Time Was Saved, 1997–2001

		Minute	es Saved	per Vehic	<b>Change in Minutes Saved</b>			
Rank	Carpool Lane	1997	1998	1999	2000	2001	2000-2001	1997-2001
1	Interstate 880, southbound, a.m. — Alameda County Whipple Road to Mission Boulevard (11.5 miles)	NA	NA	25	25	40	+15	NA
2	Interstate 880, northbound, a.m. — Alameda County 16th Street to Bay Bridge toll plaza (1.2 miles)	NA	9	18	32	31	-1	NA
3	Interstate 80, westbound, a.m.¹ — Alameda County Bay Bridge toll plaza (4 lanes, 0.4 to 1.0 miles)	12	15	18	24	24	0	+12
4	<b>Route 84, westbound, a.m.</b> — Alameda County Dumbarton Bridge toll plaza (1.8 miles)	12	16	16	16	19	+3	+7
5	<b>Route 85, northbound, a.m.</b> — Santa Clara County Almaden Expressway to Interstate 280 (12.5 miles)	8	0	5	9	16	+7	+8
6a	Route 85, southbound, p.m. — Santa Clara County Interstate 280 to Almaden Expressway (12.5 miles)	3	11	9	9	15	+6	+12
<b>6</b> b	Interstate 880, northbound, p.m. — Alameda County Mission Boulevard to Whipple Road (11.5 miles)	NA	NA	9	9	15	+6	NA
7a	Interstate 80, westbound, a.m.¹ — Contra Costa County Route 4 to Alameda County Line (9.7 miles)	NA	10	11	11	13	+2	NA
<b>7</b> b	U.S. 101, southbound, a.m. — Marin County Route 37 to North San Pedro Road (6.1 miles)	19	15	6	9	13	+4	-6
7c	<b>U.S. 101, northbound, a.m.</b> — Santa Clara County <i>I-280/I-680 interchange to Guadalupe Parkway (6 miles)</i>	14	7	11	16	13	-3	-1

Source: Caltrans District 4

NA = Not available

<sup>&</sup>lt;sup>1</sup>Carpool is three or more persons per vehicle. For all other listed locations, carpool is two or more persons.



#### **Carpool Lane Usage**

## **Carpool Lanes Grow in Popularity With Bay Area Commuters**

As time savings have increased for carpoolers on Bay Area freeways (see preceding topic), carpool lanes have grown in popularity. In the most recent five-year period, from 1997–2001, peak-hour traffic volumes on the region's 10 most heavily used carpool-lane segments have gone up steadily. And the growth has been most dramatic in the highest-volume carpool corridor, the morning approach to the San Francisco-Oakland Bay Bridge on westbound Interstate 80. Faced with the perennial morning backup at this traffic chokepoint, commuters have migrated to the carpool lane in record numbers, resulting in a 77 percent increase in usage over the last five years.

However, in 2001 — as congestion eased around the region due to the economic downturn — carpool lane volumes decreased in a few locations, mostly in the South Bay (see table below).

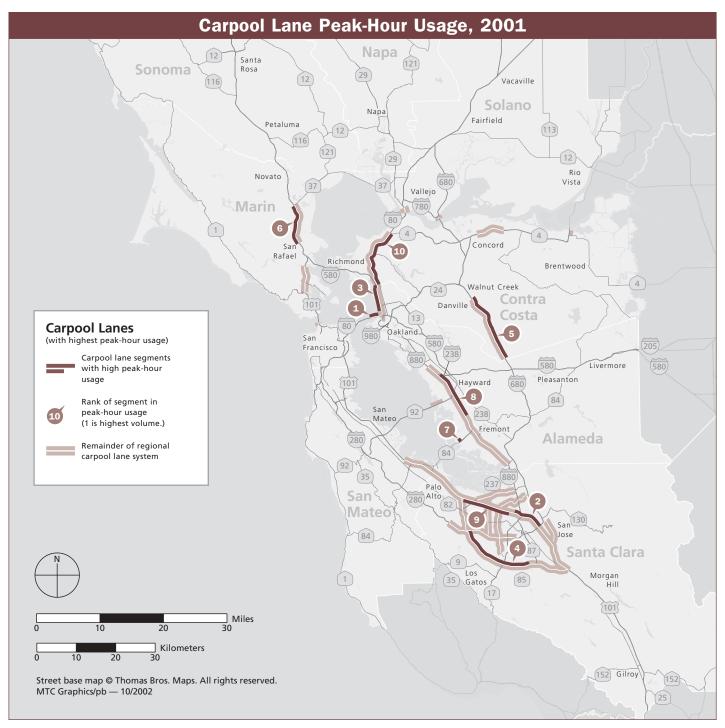
Tracking the number of vehicles in carpool lanes enables Bay Area travel planners to see how system use changes over time and in response to freeway congestion. Lanes where vehicle volumes are especially low can become candidates for conversion back to regular, mixed-flow lanes. Lanes where vehicle volumes are nearing capacity may indicate that an increase in vehicle occupancy requirements is warranted.

#### Bay Area Carpool Lanes With Highest Peak-Hour Usage, 1997–2001

	Peak-Hour Carpool Vehicles <sup>1</sup>					Percent Change	
Carpool Lane	1997	1998	1999	2000	2001	2000-2001	1997-2001
1 Interstate 80, westbound, a.m. <sup>2</sup> — Alameda County Bay Bridge toll plaza	2,246	3,083	3,492	3,804	3,975	+4%	+77%
<b>U.S. 101, northbound, a.m.</b> — Santa Clara County <i>I-280/I-680 interchange to Guadalupe Parkway</i>	1,548	1,672	1,692	1,585	1,594	+1%	+3%
Interstate 80, westbound, a.m. <sup>2</sup> — Alameda County Contra Costa County line to Powell Street	NA	1,365	1,503	1,113	1,555	+40%	NA
Route 85, northbound, a.m. — Santa Clara County Almaden Expressway to Interstate 280	1,049	1,071	1,188	1,456	1,409	-3%	+34%
<b>Interstate 680, northbound, p.m.</b> — Contra Costa County Alcosta Boulevard to Livorna Road	1,041	1,043	1,119	1,421	1,383	-3%	+33%
6 U.S. 101, southbound, a.m. — Marin County Route 37 to North San Pedro Road	1,319	1,103	1,217	1,282	1,361	+6%	+3%
<b>Route 84, westbound, a.m.</b> — Alameda County Dumbarton Bridge toll plaza	1,218	1,453	1,626	1,376	1,354	-2%	+11%
8 Interstate 880, northbound, p.m. — Alameda County Whipple Road to south of Interstate 238 interchange	1,074	788	867	1,364	1,338	-2%	+25%
9 U.S. 101, southbound, p.m. — Santa Clara County Ellis Street to Guadalupe Parkway	1,161	1,295	1,342	1,333	1,331	0%	+15%
Interstate 80, eastbound, p.m. <sup>2</sup> — Contra Costa County Alameda County line to Route 4	NA	834	794	1,091	1,322	+21%	NA

Source: Caltrans District 4

<sup>&</sup>lt;sup>1</sup>Includes buses, vanpools and motorcycles. <sup>2</sup>Carpool is three or more persons per vehicle. For all other listed locations, carpool is two or more persons.



#### **Local Traffic**

## Afternoon Congestion on Upward Trend, but Traffic Still Flows Freely on Most Local Roads

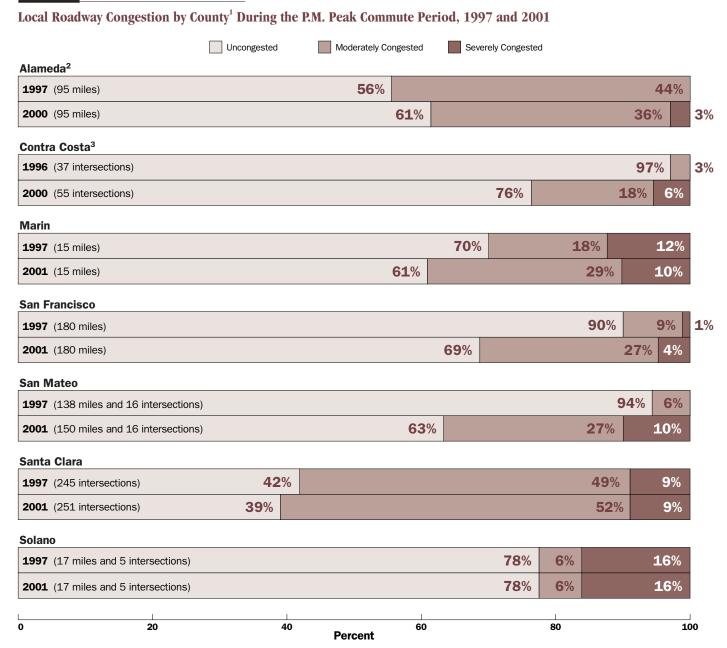
Mirroring the trend on Bay Area freeways, traffic conditions on local roadways deteriorated during the late 1990s and into the new century. In the five-year period from 1997 to 2001, monitoring of congestion levels on "high-priority" local streets and roads showed an increase in the percentage of "moderately congested" segments or intersections in most counties. During the same time, several counties showed increases in the percentage of roadways deemed "severely congested." Even so, only a very small portion (3 percent to 16 percent) of each county's roadway system was found to be severely congested.

However, even with the overall rise in congestion, it should be noted that in most of the monitored segments and intersections in the local roadway system, traffic flowed freely during the evening commute period. Santa Clara County is an exception to this phenomenon. Here, even the slowing economy has not appreciably thinned traffic at the 251 intersections monitored by the county's

congestion management agency in 2001, with 52 percent experiencing moderate congestion.

In the Bay Area, congestion management agencies monitor performance of a selected system of "high priority" local roads biennially in every county except Napa and Sonoma. Santa Clara and Contra Costa counties measure congestion based on vehicle counts at major intersections. San Francisco, Alameda and Marin counties measure congestion via specially equipped cars that cruise selected segments of the roadway system to calculate the average travel speed. San Mateo and Solano counties use both techniques.

Because monitoring techniques vary by county, the congestion data presented here is best used to track changes within a given county over time (rather than to compare conditions in different counties). See Appendix A for further discussion of monitoring techniques and definitions of congestion severity.



Source: County congestion monitoring reports

<sup>&</sup>lt;sup>1</sup> Selected road segments and/or intersections; Napa and Sonoma counties do not monitor local roadway congestion.

<sup>&</sup>lt;sup>2</sup> 2000 data used in lieu of 2001 data, which is not available.

<sup>&</sup>lt;sup>3</sup> Contra Costa County measures congestion in even-numbered years; data is for 1996 and 2000, as labeled.

#### **Transit On-Time Performance**

### On-Time Records of Bay Area Transit Operators Vary Widely

The challenge of getting the Bay Area's buses and trains to run on time is met with varying degrees of success by the region's seven major transit operators. In fiscal year 2000-01 (the most recent 12-month period for which data is available), both the Valley Transportation Authority and BART continued their records of punctuality, logging ontime performance ratings of 93 percent and 92 percent, respectively.

While San Francisco Muni's fleet of light-rail vehicles turned in the lowest on-time performance record (49 percent), the rating was an almost 100 percent improvement over the performance recorded just three years prior, in 1997-98. Muni's motor buses and trolley buses also showed significant on-time improvements in 2000-01. The gains in Muni's performance reflect recent efforts to improve service in response to 1999's voter-approved

#### On-Time Performance of Seven Major Bay Area Transit Operators, Fiscal Years 1996-97-2000-01

#### Percent of Trips on Time by Fiscal Year

		-	=		
1996-97	1997-98	1998-99	1999-2000	2000-01	2000-01 Goal <sup>7</sup>
NA	NA	94%	94%	93%	95%
92%	91%	88%	87%	85%	95%
89%	88%	85%	85%	85%	85%
68%	70%	73%	73%	69%	90%
NA	54%	54%	NA	64%	85%
NA	50%	57%	NA	63%	85%
92%	92%	92%	92%	92%	95%
NA	NA	91%	91%	93%	95%
94%	89%	88%	66%	86%	95%
NA	26%	43%	NA	49%	85%
	NA 92% 89% 68% NA NA 92% NA	NA NA 92% 91% 89% 88% 68% 70% NA 54% NA 50%  92% 92% NA NA NA 94% 89%	NA NA 94% 92% 91% 88% 89% 88% 85% 68% 70% 73% NA 54% 54% NA 50% 57%  92% 92% 92% NA NA NA 91% 94% 89% 88%	NA NA 94% 94% 92% 91% 88% 87% 89% 88% 85% 85% 68% 70% 73% 73% NA 54% 54% NA NA 50% 57% NA  92% 92% 92% 92% NA NA NA 91% 91% 94% 89% 88% 66%	NA NA 94% 94% 93% 92% 91% 88% 87% 85% 89% 88% 85% 85% 85% 68% 70% 73% 73% 69% NA 54% 54% NA 64% NA 50% 57% NA 63%  92% 92% 92% 92% 92% NA NA NA 91% 91% 93% 94% 89% 88% 66% 86%

Sources: AC Transit, Golden Gate Transit, Muni, SamTrans, VTA, Caltrain, BART

<sup>&</sup>lt;sup>1</sup>No more than 5 minutes late

<sup>&</sup>lt;sup>2</sup>No more than 5 minutes late or 1 minute early

<sup>&</sup>lt;sup>3</sup>Never early and no more than 5 minutes late

<sup>&</sup>lt;sup>4</sup>No more than 4 minutes late or 1 minute early; prior to 1998-99, no more than 3 minutes late or 1 minute early

<sup>&</sup>lt;sup>5</sup>No more than 3 minutes late

<sup>&</sup>lt;sup>6</sup>Train arrived at end of the line station within 5 minutes of scheduled time

<sup>&</sup>lt;sup>7</sup> Goals from operators' triennial audit reports and Caltrain 1997 Strategic Plan

Proposition E. Proposition E also liberalized the definition of "on-time," though Muni's standard is still the most rigorous of the major operators. (See Note 4 to the table on page 24.)

The data show that many of the major operators maintain a relatively consistent on-time record from year to year. One exception is Caltrain, whose on-time performance in fiscal year 1999-2000 was adversely affected by major track

rehabilitation work that disrupted service. Golden Gate Transit's buses are perhaps another exception, with the results showing on-time performance gradually declining over the five-year period from 1996-97 to 2000-01. For some operators, deterioration of on-time performance is due to increases in roadway congestion, which can affect the ability of buses to stay on schedule.

#### **Transit Ridership**

## New Rails, Economic Growth Boosted Transit Ridership Through 2000-01; Dropoff Foreseen Due to Slowing Economy

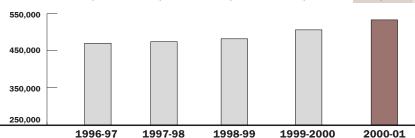
After enduring a prolonged stretch of basically flat ridership during the early 1990s — a period of economic recession — Bay Area transit operators racked up five straight years of steadily increasing ridership in the period ended June 30, 2001. In fiscal year 1999-2000, annual boardings for the region topped the 500 million mark. This figure soared still higher the next year when transit riders boarded trains, buses, streetcars and ferries a record 533 million times in the Bay Area. (A "boarding"

refers to each time a passenger gets on a transit vehicle.)

The 13 percent overall increase in ridership since 1996-97 is due in part to a hot regional economy that created many new jobs. But ridership also was boosted by a number of attractive new transit service expansions — especially rail extensions — which came online and succeeded in luring new riders onto transit. Among the rail extensions and new services that contributed to ridership gains are: new Altamont Commuter Express rail service

#### Ridership on Bay Area Transit Systems by Operator, Fiscal Years 1996-97-2000-01

	<u>Percent</u>	<u>Change</u>					
Operator	1996-97	1997-98	1998-99	1999-2000	2000-01	1999-2000- 2000-01	1996-97- 2000-01
Muni	217,631	219,507	217,050	226,182	236,205	+4%	+9%
BART	83,446	81,422	86,488	97,024	103,919	+7%	+25%
AC Transit	63,303	63,877	66,089	68,088	71,529	+5%	+13%
Valley Transportation Authority	53,062	53,547	54,996	55,701	58,160	+4%	+10%
SamTrans	18,562	18,834	18,350	17,925	18,136	+1%	-2%
Golden Gate Transit	10,962	11,032	11,108	11,465	11,618	+1%	+6%
Caltrain	7,040	8,632	8,622	8,735	9,925	+14%	+41%
Other Operators	16,022	17,349	19,283	20,986	23,546	+12%	+47%
Total – All Operators	470,028	474,200	481,986	506,106	533,038	+5%	+13%
550,000	_						

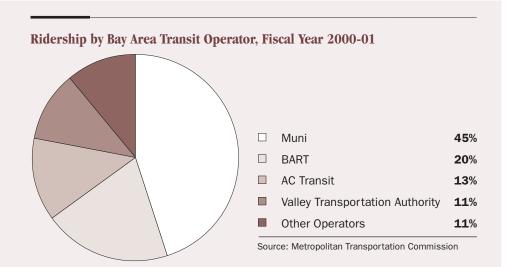


Source: Metropolitan Transportation Commission

from Stockton to the Silicon Valley (1998-99); the Tasman light-rail extension in Santa Clara County (2000-01); the new Muni F-line extension to Fisherman's Wharf and the Muni light-rail extension to the San Francisco Caltrain depot (1998-99).

The slowing of the regional economy in 2001 and 2002 is almost certain to be reflected in smaller annual boarding figures for the fiscal year ended June 30, 2002, when that data becomes available.

A Closer Look — Although nearly two dozen transit agencies provide service in the Bay Area, four operators — San Francisco Muni, BART, AC Transit and the Valley Transportation Authority — account for the lion's share of annual boardings. Together, these four operators logged 89 percent of all boardings in fiscal year 2000-01.



The 10 most heavily used bus routes in 2001 are shown to the right. Eight of the routes are operated by San Francisco Muni.

Top 10 Bay Area Bus Routes, by Boardings

Route	Average Weekday Boardings
1. San Francisco Muni: 38 Geary	52,500
2. San Francisco Muni: 14 Mission	47,600
3. San Francisco Muni: 1 California	32,400
4. San Francisco Muni: 9 San Bruno	30,200
5. San Francisco Muni: 15 Third Street	28,200
6. San Francisco Muni: 30 Stockton	27,300
7. San Francisco Muni: 22 Fillmore	25,500
8. Valley Transportation Authority: 22 Eastridge – Palo Al	to/Menlo Park 25,200
9. AC Transit: 82/82L West Oakland – Hayward BART	22,500
10. San Francisco Muni: 49 Van Ness/Mission	21,000

Sources: AC Transit, Muni, VTA

Information for fiscal year 2000-01 except for AC Transit, which reflects 1998.